

Amendment

Reply to Office Action dated June 26, 2007

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AMENDMENTS TO THE SPECIFICATION

The following amendments to the specification use paragraph numbers taken from the published version of the application.

Please insert the following section header immediately before paragraph [0001]:

FIELD OF THE INVENTION

Please insert the following section header immediately before paragraph [0003]:

BACKGROUND OF THE INVENTION

Please insert the following section header immediately before paragraph [0026]:

BRIEF SUMMARY OF THE INVENTION

Please insert the following section header immediately before paragraph [0059]:

DETAILED DESCRIPTION OF THE DRAWINGS

Please insert the following section header immediately before paragraph [0070]:

DETAILED DESCRIPTION OF THE INVENTION

Please replace paragraph [0071] with the following:

Referring to FIG. 2; the external surface (8) of the abutment [[(9)]] 4 is adapted to the internal geometry (10) of a plastic coping (11) according to the invention and FIG. 2. There are means (12', 12'') to obtain a stable and retaining joint (13) with high tolerances and fit between the abutment and the coping mating surfaces (14',14'') during the preparation of the restoration. This retention can for example be obtained by means of friction, mechanical locking, temporary cement, removable scotch, removable paint or combination thereof.

Please replace paragraph [0072] with the following:

Referring to FIGS. 3a, 3b, 3c and 4; a set of burn-out plastic copings, with anatomical transgingival margins 15 that follow the mesial (16') and distal contour (16''). A set includes different anatomical copings for different anatomical positions like the anterior mandible (narrow teeth), the anterior maxilla (angulated teeth) or the posterior regions (larger emergence profiles and diameters). The anatomical designs include copings with low margins (17) to high margins (18), FIG. 3b, narrow margins (19) or wide margins (20), FIG. 3c, and angulated copings with angulations up to 40 degrees, but preferably 15.degree. (21) to 30.degree. (22), FIG. 4. Other anatomical design features are different transgingival cross-sections FIG. 5 with round (23), oval (23') and triangular (23''), different heights (24, 24', 24''), FIG. 3b, and emergence profiles (25, 25', 25''), FIG. 3c. The heights are preferably from 1-5 mm. Each set can be produced from the same mould and even held together by the spurs in its as delivered condition. Together with the anatomical copings proper blanks and/or instruments can be included in the kit and on spur. With each abutment, which for example is made in a precious metal or non-precious like titanium, the clinician can be provided with the whole range of copings to choose from due to the effective production. Thus the set can be included with each abutment, but the copings can also be provided separately from the abutments, for example sorted by type but still they form a set of copings available for the clinician. The number of copings is below 30 and preferably below 20.

Please replace paragraph [0074] with the following:

Referring to FIGS. 10 and 13, the plastic coping inner region of a ~~plastic coping~~ (42) is provided with a central conduit (43). One end (44) of the conduit (43), is provided with an annular shoulder

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(45) (depicted as region A), the shoulder itself being provided with a plurality of circumferential ridges/lips (46) (preferably 6) (depicted as region B). The ridges/lips (46) comprise a resilient plastics material which can resiliently flex so as to create a compression through press fit over the corresponding top part of an abutment. It is not necessary for region A to be provided with a press fit since it is mainly there to provide support rather than to form a fixing connection.

Please replace paragraph [0075] with the following:

Furthermore, it is important that the titanium abutment (70) (depicted in FIG. 12) may have two regions (60' and 60'') (wings) of the upper part of the abutment. In addition, some of the annular ridges/lips of the coping may also be removed in order to avoid fitting problems after casting.

Please replace paragraph [0077] with the following:

With reference to FIGS. 6-7, After after the preparation, the coping [[(43)]] (26), the wax [[(44)]] 38 and the abutment [[(42)]] 28 are cast by conventional methods, for example the lost wax process as previously said, to form a solid body [[(45)]] (54). The preparation has no limitations and the copings can be used when producing single crowns, partials or full bridges as well as for ball attachments according to any existing common procedures. This technique can be used also with non-precious metals but the bonding between the metal abutment and that cast will be poor with the existing casting techniques and metals. However there is another solution for non-precious materials, like titanium, as described below.

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Please replace paragraph [0078] with the following:

With reference to FIGS. 8-9, When when using a non-precious metal like titanium in the abutment (29) the preparation (39,46, 48) (48) is lifted off from the abutment [(47)] (29) and then the preparation is cast individually according to suitable techniques. To be able to re-seat the cast (49) on the abutment [(50)] (29) the retention function of the retentive element (12") must be removed which is done either before casting on the preparation (48) or after casting (49) with a suitable method and/or tool. If it is an annular lip on the coping or on the cast the lip can be removed by a burr or similar tool. If it is a scotch then it is just peeled off. If it is a paint, the paint is removed by existing methods. When this is done the solid non-precious after casting preparation (49) can be placed and joined to the abutment [(50)] (29) by means of for example laser welding the contacting surfaces (51, 51'). To increase the strength, or as alternative joining methods, cementation can be used or an extra weld can be placed on the upper coronal part of the abutment (52). The laser weld (53) is easily polished to avoid irregularities in order to avoid plaque retention.

Please replace paragraph [0079] with the following:

[0079] After the preparation of the metallic core (49+50) of the reconstructed tooth (54) the baking of the porcelain can (I) can take place on the individually made or customised customized abutment containing the metal cast (II) joined to the abutment (III). Again the preparation has no limitations and the copings can be used when producing single crowns, partials or full bridges as well as for ball attachments, even though for some rare cases the titanium cast is still not suitable since passive fit of for example a cast bridge might only be achieved by sectioning the final cast and subsequent joining by laser or other appropriate method. The preferred solution with the

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method of casting in a non-precious metal like titanium is to fabricate an individual abutment which than can be a base for single crowns, partials or full bridges as well as for ball attachments.